cause the intermittent inductive automatic train stop system to perform its intended function.

[49 FR 3386, Jan. 26, 1984]

#### §236.505 Proper operative relation between parts along roadway and parts on locomotive.

Proper operative relation between the parts along the roadway and the parts on the locomotive shall obtain under all conditions of speed, weather, wear, oscillation, and shock.

# §236.506 Release of brakes after automatic application.

The automatic train stop or train control apparatus shall prevent release of the brakes after automatic application until a reset device has been operated, or the speed of the train has been reduced to a predetermined rate, or the condition that caused the brake application no longer affects the movement of the train. If reset device is used it shall be arranged so that the brakes cannot be released until the train has been stopped, or it shall be located so that it cannot be operated by engineman without leaving his accustomed position in the cab.

# §236.507 Brake application; full service.

The automatic train stop or train control apparatus shall, when operated, cause a full service application of the brakes.

## § 236.508 Interference with application of brakes by means of brake valve.

The automatic train stop, train control, or cab signal apparatus shall be so arranged as not to interfere with the application of the brakes by means of the brake valve and not to impair the efficiency of the brake system.

[49 FR 3386, Jan. 26, 1984]

# § 236.509 Two or more locomotives coupled.

The automatic train stop, train control or cab signal apparatus shall be arranged so that when two or more locomotives are coupled, or a pushing or helping locomotive is used, it can be

made operative only on the locomotive from which the brakes are controlled.

#### §236.510 [Reserved]

# §236.511 Cab signals controlled in accordance with block conditions stopping distance in advance.

The automatic cab signal system shall be arranged so that cab signals will be continuously controlled in accordance with conditions described in §236.205 that obtain at least stopping distance in advance.

# §236.512 Cab signal indication when locomotive enters block where restrictive conditions obtain.

The automatic cab signal system shall be arranged so that when a locomotive enters or is within a block, wherein any condition described in §236.205 obtains, the cab signals shall indicate "Proceed at Restricted Speed."

#### §236.513 Audible indicator.

- (a) The automatic cab signal system shall be so arranged that when the cab signal changes to display a more restrictive aspect, an audible indicator will sound continuously until silenced by manual operation of an acknowledging device.
- (b) The audible cab indicator of automatic cab signal, automatic train stop, or automatic train control system shall have a distinctive sound and be clearly audible throughout the cab under all operating conditions.

[49 FR 3386, Jan. 26, 1984]

## §236.514 Interconnection of cab signal system with roadway signal system.

The automatic cab signal system shall be interconnected with the road-way-signal system so that the cab signal indication will not authorize operation of the train at a speed higher than that authorized by the indication of the roadway signal that governed the movement of a train into a block except when conditions affecting movement of trains in the block change after the train passes the signal.

#### § 236.515

#### §236.515 Visibility of cab signals.

The cab signals shall be plainly visible to member or members of the locomotive crew from their stations in the cab.

[49 FR 3386, Jan. 26, 1984]

#### § 236.516 Power supply.

Automatic cab signal, train stop, or train control device hereafter installed shall operate from a separate or isolated power supply.

[49 FR 3386, Jan. 26, 1984]

RULES AND INSTRUCTIONS: ROADWAY

# §236.526 Roadway element not functioning properly.

When a roadway element except track circuit of automatic train stop, train control or cab signal system is not functioning as intended, the signal associated with such roadway element shall be caused manually to display its most restrictive aspect until such element has been restored to normal operative condition.

### §236.527 Roadway element insulation resistance.

Insulation resistance between roadway inductor and ground shall be maintained at not less than 10,000 ohms.

[49 FR 3386, Jan. 26, 1984]

# § 236.528 Restrictive condition resulting from open hand-operated switch; requirement.

When a facing point hand-operated switch is open one-fourth inch or more, a trailing point hand-operated switch three-eighths inch or more, or hand-operated switch is not locked where facing point lock with circuit controller is used, the resultant restrictive condition of an automatic train stop or train control device of the continuous type or the resultant restrictive cab signal indication of an automatic cab signal indication of an automatic cab signal device on an approaching locomotive shall be maintained to within 300 feet of the points of the switch.

## §236.529 Roadway element inductor; height and distance from rail.

Inductor of the inert roadway element type shall be maintained with the inductor pole faces at a height above the plane of the tops of the rails, and with its inner edge at a hmrizontal distance from the gage side of the nearest running rail, in accordance with specifications of the carrier.

[49 FR 3386, Jan. 26, 1984]

#### §236.530 [Reserved]

# §236.531 Trip arm; height and distance from rail.

Trip arm of automatic train stop device when in the stop position shall be maintained at a height above the plane of the tops of the rails, and at a horizontal distance from its center line to gage side of the nearest running rail, in accordance with specifications of the carrier

[49 FR 3386, Jan. 26, 1984]

### §236.532 Strap iron inductor; use restricted.

No railroad shall use strap iron inductor or other roadway element with characteristics differing from its standard type on track where speed higher than restricted speed is permitted.

[49 FR 3386, Jan. 26, 1984]

#### §236.533 [Reserved]

## §236.534 Entrance to equipped territory; requirements.

Where trains are not required to stop at the entrance to equipped territory, except when leaving yards and stations and speed until entering equipped territory does not exceed restricted speed, the automatic train stop, train control, or cab signal device shall be operative at least stopping distance from the entrance to such territory except where the approach thereto is governed by automatic approach signal.

RULES AND INSTRUCTIONS; LOCOMOTIVES

## §236.551 Power supply voltage; requirement.

The voltage of power supply shall be maintained within 10 percent of rated voltage.